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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,568	02/10/2004	Naoyuki Itakura	SON-2919	8508
23353 7590 07/13/2007 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036			EXAMINER SHAPIRO, LEONID	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 07/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/774,568

Applicant(s)

ITAKURA ET AL.

Examiner

Leonid Shapiro

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/10/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Asada et al. (US Patent No. 5,883,609).

As to claim 1, Asada et al. teaches a display device having at least a different resolution first mode and second mode having a lower resolution than said first mode (See Col. 1, Lines 7-15), comprising:

a pixel portion comprised of pixel circuits, for writing pixel data into pixel cells through switching elements, arranged so as to form a matrix of at least a plurality of rows (See Fig. 1, items i,j,101,TFT, Col. 3, Lines 17-45);

a plurality of scan lines arranged so as to correspond to a row arrangement of said pixel circuits and controlling conduction of said switching elements;

at least one signal line arranged so as to correspond to a column arrangement of said pixel circuits and propagating said pixel data (See Fig. 1, items i,j,101, Col. 3, Lines 17-45); and

a vertical drive circuit (in the reference is equivalent to Address Decoder 102) for processing for successively scanning said scan lines in a row direction by scan pulses and successively selecting the pixel circuits connected to the scan lines 'in units of rows (See Fig. 1, items i,j,102, Col. 3, Lines 17-45) in said first mode and for

Art Unit: 2629

processing for successively scanning said scan lines for every adjacent plurality of scan lines in the row direction by the scan pulses (See Fig. 6, Gp-1,..., GP-1024, Col. 15, Lines 18-22) and successively selecting the pixel circuits connected to said plurality of scan lines in units of the plurality of rows in said second mode (See Fig. 8, Gp-1-Gp-2,..., GP-1024, Col. 16, Lines 13-29).

As to claim 9, Asada et al. teaches a method of driving a display device including a pixel portion comprised of pixel circuits, for writing pixel data into pixel cells through switching elements, arranged so as to form a matrix of at least a plurality of rows (See Fig. 1, items i,j,101,TFT, Col. 3, Lines 17-45);and a plurality of scan lines arranged so as to correspond to a row arrangement of said pixel circuits and controlling conduction of said switching elements (See Fig. 1, items i,j,101, Col. 3, Lines 17-45), comprising the steps of

processing for successively scanning said scan lines in a row direction by scan pulses and successively selecting the pixel circuits connected to the scan lines in units of rows in a first mode having a predetermined resolution (See Fig. 1, items i,j,102, Col. 3, Lines 17-45) and for

processing for successively scanning said scan lines for every adjacent plurality of scan lines in the row direction by the scan pulses (See Fig. 6, Gp-1,..., GP-1024, Col. 15, Lines 18-22) and successively selecting the pixel circuits connected to said plurality of scan lines in units of the plurality of rows in said second mode having a lower resolution than said first mode (See Fig. 8, Gp-1-Gp-2,..., GP-1024, Col. 16, Lines 13-29).

As to claims 3-4,7 Asada et teaches a horizontal drive circuit including a selector having selector switches for selecting the pixel data and supplying the same to said signal lines, said selector switches formed by connecting pluralities of switches in parallel to the corresponding signal lines, making said pluralities of switches conductive and outputting the selected pixel data to the signal lines through said pluralities of switches in said first mode, and making any switches among said pluralities of switches conductive and outputting the selected pixel data to the signal lines through said switches in said second mode (See Fig. 23, items 208-1,..., 208-1280, from Col. 30, Line 21 to Col. 31, Line 44).

As to claims 2,10 Asada et al. teaches a rear edge timing of the scan pulses for outputting the scan pulses to be output to a plurality of scan lines to be scanned simultaneously in parallel to the scan lines of a previous stage earlier than the rear edge timing of the scan pulses to be output to the scan lines of the next stage in said second mode (See Fig. 24, SP-1,...,SP80, from Col. 31, Line 45 to Col. 32, Line 31).

As to claim 5, Asada et al. teaches a plurality of said signal lines (See Fig. 23, items DS-1,...,DS-1280) and a plurality of horizontal drive circuits dividing said plurality of signal lines into a plurality of groups and supplying pixel data to the signal lines corresponding to the divided groups (See Fig. 23, items 207-1,...,207-16, Col. 30, Lines 34-38).

As to claim 6, Asada et al. teaches a plurality of said signal lines (See Fig. 23, items DS-1,...,DS-1280) and a plurality of horizontal drive circuits dividing said plurality of signal lines into a plurality of groups and supplying pixel data to the signal lines

Art Unit: 2629

corresponding to the divided groups (See Fig. 23, items 207-1,...,207-16, Col. 30, Lines 34-38),

each horizontal drive circuit including a selector having selector switches for selecting the pixel data and supplying the same to said signal lines, said selector switches formed by connecting pluralities of switches in parallel to the corresponding signal lines, making said pluralities of switches conductive and outputting the selected pixel data to the signal lines through said pluralities of switches in said first mode, and making any switches among said pluralities of switches conductive and outputting the selected pixel data to the signal lines through said switches in said second mode (See Fig. 23, items 208-1,..., 208-1280, from Col. 30, Line 21 to Col. 31, Line 44).

As to claims 8,11 Asada et al. teaches pixel cells are liquid crystal cells (See Col. 1, Lines 7-15).

Response to Arguments

2. Applicant's arguments filed 04/13/07 have been fully considered but they are not persuasive:

On page 6, last paragraph and 1st paragraph on next page of Remark, Applicant's stated that Figs. 7 and 8 illustrate timing diagrams for a sample 256 scanline (P-1 - P-256) display, and show the differences between control signals for driving the LCD at both a high (1-fold) and low (2-fold) resolution, respectively. In both Figs. 7 and 8, the same number of control signals (8 pulse signals) are used to drive the same number of scan lines (28=256 scanlines). A comparison of the driving diagrams shows

that, in the 2-fold resolution of Fig. 8, adjacent pairs of control signals (G-1 - G-8) are driven identically at periods twice as long as in the 1-fold resolution setting, disclosed in Fig. 7. These control signals do not provide the input nor effect the output of vertical drive circuit 12. Accordingly, Asada does not modify the operation of the vertical drive circuit 12 in order to obtain lower resolutions, instead accomplishing the desired result using identical, adjacent control signals (Fig. 23). However, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., accomplishing the desired result using identical, adjacent control signals or do not provide the input nor effect the output of vertical drive circuit) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On page 6, 2nd paragraph of Remark, Applicant's stated that ...the operation of the vertical drive circuit unchanged and unaffected by the scan pulses. Asada teaches that by producing identical, adjacent control signals, it is possible to reduce LCD screen resolution without modifying the function of the vertical drive circuit. However, Asada et al. teaches comparison of Figures 6 and 8 clearly teaches the modification the function of the vertical drive circuit (fig. 5, item 12).

On page 6, 2nd paragraph of Remark, Applicant's stated that Asada does not teach or suggest a multi-mode vertical drive circuit capable of differing in the technique by which it associates pulse signals with scanlines, or by the technique of associating

Art Unit: 2629

"scan pulses and successively selecting the pixel circuits connected to said plurality of scan lines in units of the plurality of rows" as recited in claim 1. However, Asada et al. teaches successively selecting the pixel circuits connected to said plurality of scan lines in units of the plurality of rows in said second mode (See Fig. 8, Gp-1-Gp-2,..., GP-1024, Col. 16, Lines 13-29).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

Art Unit: 2629

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
07.29.07



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